

Review Comments

Draft Final Interim Feasibility Study

San Jacinto Waste Pits, TX

EFB 04/10/14

Other than enhancing the existing cap armoring, there appears to be little justification to further treatment on-site or excavation and offsite disposal. The following reasons are briefly discussed:

- 1) The ACOE has a history of building and operating both stable CDFs and CADs in or adjacent to similar environmental settings. However it is recognized that such sites are actively managed with a great deal of oversight and monitoring, more so than what can be expected with the San Jacinto Waste Pits Site.
- 2) The San Jacinto hydraulic model indicated minimal scouring during a 100 yr flood event (note this may not be verifiable as actual data contradicts with larger scouring amounts).
- 3) The existing cap was designed to withstand more flooding than the 100 yr. storm
- 4) One alternative that should be further considered enhances the cap by providing more armoring and flattening of the slopes would increase scouring resistance even more. Enhancement of the sheet piling, or at least accounting for wave overlap and return (see below) should also be part of this alternative.
- 5) The NCP treatment preference, which is proposed as solidification and stabilization is not demonstrated by the CFT model which predicts increased surface water dioxin concentrations due to implementation. However, this model could have been partially verified (or proven wrong) if the transport mechanism was studied during the previous interim action. An important comment is that adding cement only is considered (by convention) to only be considered as solidifying a material, since cement does not physically precipitate nor sorb the dioxin, the term stabilization should be eliminated for this alternative.

The above discussion must be evaluated with other factors:

- 1) There was no analysis on temporary tidal influenced waves which could overtop sheet piling, causing erosion and flooding during return.
- 2) Global climate change trends could increase the hydraulic affect associated with the defined flood events.
- 3) Minor cap disruptions has been observed on the site and repairs were completed. The likelihood of this occurring more frequently in the future needs to be evaluated, especially for the cap enhancement alternative.

If I have more time, I plan to review the CFT portion of the model to see if I agree with the increased release predicted for the partial solidification alternative.